IN THE CLAIMS:

Please cancel claims 3, 14 and 25 without prejudice or disclaimer of subject matter and amend Claims 1, 2, 4 to 6, 9 to 13, 15 to 17 and 20 to 33 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) A method of mapping a device dependent color value depending on ~~correcting a color value generated by a forward model for~~ a color input device to a device-independent color space, comprising:

converting the device dependent color value into a device-independent color value by using a forward model of the color input device;

clipping a luminance component of the device-independent color value to a non-negative value;

determining whether or not the clipped device-independent color value is outside a human visual gamut; and

mapping the device-independent [[the]] color value outside the human visual gamut to a boundary of [[a]] the human visual gamut based on the determination result ~~in a color space~~.

2. (Currently amended) The method of claim 1, wherein clipping the luminance component sets the luminance component of the device-independent color value which has a negative value and chromaticity components to zero ~~the color value comprises:~~

~~clipping a luminance of the color value in a luminance space; and~~

~~clipping a chromaticity of the color value in a chromaticity space~~.

3. (Canceled)

4. (Currently amended) The method according to claim 2, wherein the luminance component of the device-independent color value is not clipped at an upper bound in the clipping ~~of claim 3, wherein the luminance is allowed to exceed the luminance of a white point in the color space~~.

5. (Currently amended) The method of claim 1, wherein the mapping maps the clipped device-independent color value outside the human visual gamut to an intersection between a line defined by the clipped device-independent color value and a white point and the boundary of the human visual gamut ~~claim 2, wherein clipping the color value further comprises:~~

~~determining at the clipped luminance a locus of the visual gamut on a chromaticity plane;~~

~~determining a vector from a white point to the color value at the clipped luminance; and~~

~~clipping the chromaticity of the color value to an intersection of the vector and the locus~~.

6. (Currently amended) The method of claim 1[[2]], wherein the boundary is the ISO standard CIE spectral locus on a chromaticity space.

7. (Original) The method of claim 6, wherein the chromaticity space is the CIE chromaticity xy plane.

8. (Original) The method of claim 6, wherein the chromaticity space is the CIE Uniform Chromaticity Scale (UCS) u'v' plane.

9. (Currently amended) The method of claim 1, wherein the device-independent color space is CIEXYZ.

10. (Currently amended) The method of claim 1, wherein the device-independent color space is CIELUV.

11. (Currently amended) The method of claim 1, wherein the device-independent color space is CIELAB.

12. (Currently amended) A data processing system for mapping a device dependent color value depending on a color input device to a device-independent color space ~~correcting a color value generated by a forward model for a color input device~~, comprising:

a processor;

a memory coupled to the processor, the memory having program instructions executable by the processor stored therein, the program instructions comprising:

converting the device dependent color value into a device-independent color value by using a forward model of the color input device;

clipping a luminance component of the device-independent color value to a non-negative value;

determining whether or not the clipped device-independent color value is outside a human visual gamut; and

mapping the device-independent color value outside the human visual gamut to a boundary of the human visual gamut based on the determination result ~~clipping the color value to a boundary of a visual gamut in a color space~~.

13. (Currently amended) The data processing system of claim 12, wherein the program instructions for clipping the luminance component set the luminance component of the device-independent color value which has a negative value and chromaticity components to zero ~~further comprising:~~

~~clipping a luminance of the color value in a luminance space; and~~

~~clipping a chromaticity of the color value in a chromaticity space~~.

14. (Canceled)

15. (Currently amended) The data processing system of claim 13 [[14]], wherein the luminance component of the device-independent color value is not clipped at an upper bound in the clipping ~~the luminance value is allowed to exceed the luminance value of a white point in the color space~~.

16. (Currently amended) The data processing system of claim 13, wherein the mapping maps the clipped device-independent color value outside the human visual gamut to an

intersection between a line defined by the clipped device-independent color value and a white point and the boundary of the human visual gamut ~~the program instructions further comprising:~~

~~determining at the clipped luminance a locus of the visual gamut on a chromaticity plane;~~

~~determining a vector from a white point to the color value at the clipped luminance; and~~

~~clipping the chromaticity to an intersection of the vector and the locus~~.

17. (Currently amended) The data processing system of claim 12 [[16]], wherein the boundary ~~locus~~ is the ISO standard CIE spectral locus on a chromaticity space.

18. (Original) The data processing system of claim 17, wherein the chromaticity space is the CIE chromaticity xy plane.

19. (Original) The data processing system of claim 17, wherein the chromaticity space is the CIE Uniform Chromaticity Scale (DCS) u'v' plane.

20. (Currently amended) The data processing system of claim 12, wherein the device-independent color space is CIEXYZ.

21. (Currently amended) The data processing system of claim 12, wherein the device-independent the color space is CIELUV.

22. (Currently amended) The data processing system of claim 12, wherein the device-independent color space is CIELAB.

23. (Currently amended) A computer-readable medium ~~computer readable media~~ having program instructions for correcting a color value generated by a forward model for a color input device, the program instructions comprising:

converting the device dependent color value into a device-independent color value by using a forward model of the color input device;

clipping a luminance component of the device-independent color value to a non-negative value;

determining whether or not the clipped device-independent color value is outside a human visual gamut; and

mapping the device-independent color value outside the human visual gamut to a boundary of the human visual gamut based on the determination result ~~clipping the color value to a boundary of a visual gamut in a color space~~.

24. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 23, wherein the program instructions for clipping the luminance component set the luminance component of the device-independent color value which has a negative value and chromaticity components to zero ~~further comprising:~~

~~clipping a luminance of the color value in a luminance space; and~~

~~clipping a chromaticity of the color value in a chromaticity space~~.

25. (Canceled)

26. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 25, wherein the luminance component of the device-independent color value is not clipped at an upper bound in the clipping ~~the luminance value is allowed to exceed the luminance value of a white point in the color space~~.

27. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 26, wherein the mapping maps the clipped device-independent color value outside the human visual gamut to an intersection between a line defined by the clipped device-independent color value and a white point and the boundary of the human visual gamut ~~the program instructions further comprising:~~

~~determining at the clipped luminance a locus of the visual gamut on a chromaticity plane;~~

~~determining a vector from a white point to the color value at the clipped luminance; and~~

~~clipping the chromaticity to an intersection of the vector and the locus~~.

28. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 27, wherein the boundary ~~locus~~ is the ISO standard CIE spectral locus on a chromaticity space.

29. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 28, wherein the chromaticity space is the CIE chromaticity xy plane.

30. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 28, wherein the chromaticity space is the CIE Uniform Chromaticity Scale (UCS) u'v' plane.

31. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 23, wherein the device-independent color space is CIEXYZ.

32. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 23, wherein the device-independent color space is CIELUV.

33. (Currently amended) The computer-readable medium ~~computer readable media~~ of claim 23, wherein the device-independent color space is CIELAB.